

Amendment To The Claims

1. (CURRENTLY AMENDED) Apparatus for controlling a volume of surgical fluid present in a cavity in a body of a patient during surgery a surgical procedure that employs a surgical drape to catch waste surgical fluid, comprising:

a first conduit to ~~said~~ the cavity for conducting ~~said~~ the surgical fluid therefrom;

~~at least one~~ a first receptacle for receiving ~~said~~ the surgical fluid from ~~said surgical site~~ the cavity, said first conduit communicating with said first receptacle;

a second conduit to the surgical drape for conducting the waste surgical fluid therefrom;

a second receptacle for receiving the waste surgical fluid from the drape,
said second conduit communicating with said second receptacle;

~~a source of~~ vacuum source;

a valve having at least two positions and interposed between said first receptacle and said vacuum source and between said second receptacle and said vacuum source,

a vacuum controller with a microprocessor controlling the position of said valve and alternately switching said valve between a first position connecting said first receptacle to said vacuum source and a second position connecting said second receptacle to said vacuum source ~~interposed between said vacuum source and said receptacle~~, said vacuum controller controlling the duration of time said first receptacle and said second receptacle are ~~is~~ exposed to a vacuum from said vacuum source, the vacuum from said vacuum source being shared between said first receptacle and said

second receptacle by sequential timed distribution thereof by said valve alternately switching between said first position and said second position under the control of said valve controller, said sharing of vacuum being prioritized by an algorithm executed by said microprocessor to favor the acquisition of a setpoint vacuum level in said first receptacle over the application of vacuum to said second receptacle ; and
a pump for supplying surgical fluid to said cavity.

2-6. (CANCELLED)

7. (CURRENTLY AMENDED) The apparatus of Claim 6, wherein said vacuum sensor is in communication with a vent valve, said vent valve venting off vacuum when in an open position.

8. (ORIGINAL) The apparatus of Claim 7, wherein said vent valve has a vent actuator in communication with said vacuum controller permitting said vacuum controller to move said vent valve between said open position and a closed position.

9-12. (CANCELLED)

13. (CURRENTLY AMENDED) The apparatus of Claim 1, further comprising:
~~Apparatus for controlling a volume of surgical fluid present in a cavity in a body of a patient during surgery, comprising:~~
~~a conduit to the cavity for conducting the surgical fluid therefrom;~~


~~at least one receptacle for receiving the fluid from the surgical site, said conduit communicating with said receptacle;~~

~~a source of vacuum;~~

~~a vacuum controller interposed between said vacuum source and said receptacle, said vacuum controller controlling the duration of time said receptacle is exposed to vacuum from said vacuum source;~~

~~a vacuum sensor for sensing a vacuum level approximating that in said at least one first receptacle;~~

~~a timer for measuring the time that said valve is maintained in said first position and in said second position, respectively, said vacuum controller controlling a duration of time said at least one first receptacle is exposed to vacuum based upon data from said vacuum sensor, said vacuum controller comparing the data from said vacuum sensor to a preselected vacuum setpoint and adjusting the time of exposure up or down as required to achieve the preselected vacuum setpoint; said vacuum controller having a valve and valve actuator for positioning said valve, said valve having at least two positions, a first of which places said vacuum source and said at least one receptacle in communication and a second of which isolates said vacuum source from said at least one receptacle; at least one other conduit leading to a surgical drape; said vacuum source adapted to apply suction to said at least one other conduit, said at least one other conduit being in communication with said valve, such that said valve controls application of vacuum from said vacuum source to said at least one other conduit; said valve having a plurality of ports and a first internal passageway therein which is selectively positionable by said valve actuator to connect and disconnect a selected one~~

 ~~of said plurality of ports to another one of said plurality of ports, said valve having a first port connected to said vacuum source and a second port connected to said at least one receptacle, said first port and said second port being selectively connectable to each other by said first internal passageway, said valve having a third port connected to said vacuum sensor, such that when said valve is in said first position said first port and said second port are in communication with each other and when said valve is in said second position, said third port and said second port are in communication with each other; said valve having a fourth port connected to said at least one other conduit and having a second internal passageway, said fourth port being connected to said first port via said second internal passageway when said valve is in said second position, and said third port being connected to said second port via said first internal passageway when said valve is in said second position~~

said valve having a first port connected to said vacuum source, a second port connected to said first receptacle, a third port connected to said vacuum sensor and a fourth port connected to said second receptacle, said first port and said second port being connected when said valve is in the first position, said second port and said third port being connected when said valve is in the second position and said first port and said fourth port being connected when said valve is in the second position.

⁵ 14. (ORIGINAL) The apparatus of Claim ⁴ 13, wherein said valve is a spool valve.

 15-18. (CANCELLED)

6 19. (CURRENTLY AMENDED) The apparatus of Claim 13, wherein said first at ~~least one~~ receptacle includes a plurality of receptacles connected together by means for conveying fluid thereto.

7 20. (CURRENTLY AMENDED) The apparatus of Claim 13, further comprising a flow-back filter positioned between said vacuum controller and said first at ~~least one~~ receptacle.

8 21. (CURRENTLY AMENDED) The apparatus of Claim 1, further comprising a pump for supplying surgical fluid to said the cavity.

9 22. (CURRENTLY AMENDED) The apparatus of Claim 21, wherein said pump is adjustable to provide a selected output based upon a pressure approximating that present in the said cavity.

10 23. (CURRENTLY AMENDED) The apparatus of Claim 22, further including a dampener disposed between said pump and said the cavity, said dampener receiving the fluid output of said pump and having pressure-sensitive volumetric capacity such that variations in output volume of said pump are diminished by said dampener, the output of which is directed to said the cavity.

11 24. (CURRENTLY AMENDED) The apparatus of Claim 23, further

including a fluid sensor for sensing the presence of ~~said~~ the surgical fluid that is directed to ~~said~~ the cavity by said pump.

1.2
25. **(CURRENTLY AMENDED)** The apparatus of Claim ~~24~~ ¹¹, wherein said fluid sensor includes a light emitting element and a light detector, said light detector juxtaposed proximate said light emitting element to receive light passing through a light transmissive portion of a supply conduit through which ~~said~~ the surgical fluid flows before entering ~~said~~ the cavity, with light received by said light detector varying depending upon the presence or absence of fluid in said light transmissive portion, such variation in light received being converted by said light detector into an electrical signal that is interpreted to determine the presence or absence of fluid in said light transmissive portion.

[26. **(CANCELLED)**
